

II. CLAIM AMENDMENTS

1. (Currently Amended) A rake receiver comprising:

impulse response measurement means and path allocation means for allocating paths to rake fingers in dependence on the output of the impulse response measurement means,

wherein the path allocating means is configured to:

calculate temporal differences between delays output by the impulse response measurement means; and

if none of the temporal differences corresponds to a filter sampling period, supply a delay to each of the rake fingers, the supplied delays having the greatest magnitudes,

if one or more of the temporal differences correspond to the filter sampling period:

calculate a ratio adjusted by a reference value for each pair of delays having the corresponding temporal difference;

if the calculated ratio is lower than a threshold, remove the delay having the lower magnitude; and

supply a delay to each of the rake fingers, the supplied delays having the greatest magnitudes

~~compare the magnitudes of pairs of peaks, represented in the output of the impulse response measurement means, and remove the peaks of a current pair have a lower magnitude from a set of peaks output by the impulse response measurement means for the allocation of paths to the rake fingers,~~

~~wherein if the magnitudes of the pair of peaks differ from a predetermined value calculated to exclude spurious paths, the pairs comprising peaks temporally separated by a period characteristic of the separation of main and side lobes of filters for producing~~

~~the baseband pulse shape expected by the receiver are used for the allocation of the paths to the rake fingers.~~

2. (Currently Amended) A rake receiver according to claim 1, wherein ~~said predetermined manner comprises the magnitude of their~~the calculated ratio ~~beingis~~ within a predetermined range.

3. (Currently Amended) A rake receiver according to claim 2, wherein ~~said predetermined manner comprises the magnitude of the results of their~~the calculated ratio ~~less aadjusted by the~~ reference value ~~beingis~~ less than ~~a~~the threshold value.

4. (Currently Amended) A rake receiver according to ~~claim 3~~claim 1, wherein the reference value corresponds to ~~thea~~ theoretical lobe ratio increased by an amount attributable to ~~thean~~ uncertainty introduced by noise.

5. (Currently Amended) A rake receiver according to claim 4, wherein said reference value comprises half the sum of the upper and lower bounds of a confidence interval in ~~thea~~ probability density for the lobe ratio, the confidence interval being not less than 90% ~~and preferably about 95%.~~

6. (Original) A rake receiver according to claim 5, wherein said threshold value is half the width of said confidence interval.

7. (Cancelled)

8. (Currently Amended) A rake receiver according to claim 1, wherein ~~said predetermined value comprises meeting the criterion~~ratio comprises:

$$\left| \frac{M_{p1}}{M_{p2}} - R \right| < I$$

where M_{p1} and M_{p2} are the magnitudes of the peaks of a pair, R is a reference ratio for a main lobe and a side lobe and I is a confidence factor.

9. (Currently Amended) A rake receiver according to claim 8, wherein R is approximately 0.175, ~~preferably 0.1746~~, and I is approximately 0.065, ~~preferably 0.0643~~.

10. (Previously Presented) A mobile phone network receiver including a receiver according to claim 1.

11. (Currently Amended) A rake receiver for receiving CDMA signals, the receiver comprising a baseband signal processor configured:

to implement a plurality of rake fingers,

to perform impulse response measurement, and

to perform path allocation for allocating paths to rake fingers in dependence on the result impulse response measurement,

wherein said path allocation comprises:

calculating temporal differences between delays output by the impulse response measurement means; and

if none of the temporal differences corresponds to a filter sampling period, supplying a delay to each of the rake fingers, the supplied delays having the greatest magnitudes,

if one or more of the temporal differences correspond to the filter sampling period:

calculating a ratio adjusted by a reference value for each pair of delays having the corresponding temporal difference;

if the calculated ratio is lower than a threshold, removing the delay having the lower magnitude; and

supplying a delay to each of the rake fingers, the supplied delays having the greatest magnitudes

~~comparing the magnitudes of pairs of peaks, identified by said impulse response measurement, and~~

~~ignoring the lesser member of a pair of peaks for the allocation of paths to rake fingers, wherein if the magnitudes of the peaks of said pair differ in a predetermined manner, so as to exclude spurious paths, the pairs comprising peaks temporally separated by a period characteristic of the separation of main and side lobes of filters for producing the baseband pulse shape expected by the receiver are used for path allocation to the rake fingers.~~

12. (Currently Amended) A rake receiver according to claim 11, wherein said ~~predetermined manner comprises the magnitude of a ratio of the pairs amplitude being~~is within a predetermined range.

13. (Currently Amended) A rake receiver according to claim 12, wherein said ~~predetermined manner comprises the magnitude of the result of the~~ calculated ~~ratio of the pairs amplitudes less~~ adjusted by the reference value ~~being~~is less than ~~a~~the threshold value.

14. (Currently Amended) A rake receiver according to claim 13, wherein the reference value corresponds to ~~the~~a theoretical lobe ratio increased by an amount attributable to ~~the~~an uncertainty introduced by noise.

15. (Currently Amended) A rake receiver according to claim 14, wherein said reference value comprises half the sum of the upper and lower bounds of a confidence interval in ~~the~~a probability density for the lobe ratio, the confidence interval being not less than 90% ~~and preferably about 95%.~~

16. (Original) A rake receiver according to claim 15, wherein said threshold value is half the width of said confidence interval.

17. (Cancelled)

18. (Currently Amended) A rake receiver according to claim 11, wherein said ~~predetermined manner comprises meeting the criterion~~ratio comprises:

$$\left| \frac{M_{p1}}{M_{p2}} - R \right| < I$$

where M_{p1} and M_{p2} are the magnitudes of the peaks of a pair, R is a reference ratio for a main lobe and a side lobe and I is a confidence factor.

19. (Currently Amended) A rake receiver according to claim 18, wherein R is approximately 0.175, ~~preferably 0.1746~~, and I is approximately 0.065, ~~preferably 0.0643~~.

20. (Previously Presented) A mobile phone network receiver including a receiver according to claim 11.